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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/505,435

02/23/2005

Mitsuhiro Yuasa

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EXAMINER

RUDAWITZ, JOSHUA I

ART UNIT

PAPER NUMBER

3652

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/505,435	<b>Applicant(s)</b> YUASA ET AL.	
	<b>Examiner</b> JOSHUA I. RUDAWITZ	<b>Art Unit</b> 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9 and 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9 and 10-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In general, the claims fail to positively recite a method step. For example, in claim 9, paragraph 2, should read along these lines:

attaching a substrate to the third substrate holding  
mechanism via an attached electrostatic chuck, while the  
first substrate holding mechanism is holding the substrate;

The rest of the claim limitations should be similarly amended to positively recite an action for the method step.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koma et al. (US 2001/0021571) in view of Kawamura et al. (US 5,562,800).

Koma et al. (Koma) discloses a method of conveying a substrate from a first base 40, inside 10, including a first substrate holding mechanism to a second

base 58b, inside 4A, including a second substrate holding mechanism using a conveyor 17 including a third substrate holding mechanism 17A; the conveyor attaching the third substrate holding mechanism including an electrostatic chuck to the substrate with the first substrate holding mechanism holding the substrate and then driving the third substrate holding mechanism so that the substrate is transferred from the first substrate holding mechanism to the third substrate holding mechanism to be held thereon by the chuck attracting the substrate while the substrate is placed on the first base ST13; the conveyor conveying the substrate from the first base to the second base ST14 and attaching the substrate to the second substrate holding mechanism [0074], while not explicitly stated, base 58b does hold the wafer per [0077]; and driving the second substrate holding mechanism so that the substrate is transferred from the third substrate holding mechanism to the second substrate holding mechanism to be held thereon by the second base while the third substrate holding mechanism is attached to the substrate; wherein each of the first, second and third substrate holding mechanisms includes a surface on which the substrate is held; and the surface of the third substrate holding mechanism is face-to-face with the surface of the first substrate holding mechanism when the substrate is transferred from the first substrate holding mechanism to the third substrate holding mechanism, and the surface of the third substrate holding mechanism is face-to-face with the surface of the second substrate holding mechanism when the substrate is transferred from the third substrate holding mechanism to the second substrate

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holding mechanism; the substrate is held by the first substrate holding mechanism after being subjected to back grinding 6.

Koma fails to disclose the type of the third holding mechanism particularly that the third holding mechanism is an electrostatic chuck.

Kawamura et al. discloses a holding mechanism for a conveyor being an electrostatic chuck (cl. 9, ln. 25-27). Because both Koma and Kawamura teach methods for transporting substrates for processing, it would have been obvious to a person having ordinary skill in the art at the time of invention, to substitute one known holding mechanism for another to achieve the predictable result of holding and securing a substrate.

5. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koma et al. (U.S. Patent App. No. 2001/0021571) in view of Kawamura et al. (U.S. Patent No. 5,562,800) in view of Sudar (U.S. Patent App. No. 2001/0016157).

The Koma in view of Kawamura combination disclose transferring the substrate between the substrate holding mechanism provided to the base provided in the reduced pressure chamber (cl. 2, ln. 53-54, Kawamura) and the third substrate holding mechanism, voltage is applied to the electrostatic chuck from which the substrate is transferred so that an electrostatic force is generated in a direction to separate the substrate therefrom.

The Koma in view of Kawamura combination fail to disclose at least one of the first and second bases and the conveyor are provided in reduced pressure

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chambers, and the substrate holding mechanism provided to the base provided in the reduced pressure chamber is an electrostatic chuck.

Sudar discloses a second base, which is an electrostatic chuck, is provided in reduced pressure chambers ([0089], ln. 22) in order to a secure wafer for processing ([0089, ln. 22-25) and to protect the substrate from debris from the processing. Therefore, it would have been obvious to a person having ordinary skill in the art, at the time of invention, to include the reduced pressure chamber and vacuum chuck of Sudar in the Koma in view of Kawamura combination in order to a secure wafer for processing and to protect the substrate from debris from the processing.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 9 and 11-13 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA I. RUDAWITZ whose telephone number is (571)272-7856. The examiner can normally be reached on Monday - Friday, 7:30 A.M. - 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on 571-272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. I. R./  
Examiner, Art Unit 3652

/Saúl J. Rodríguez/  
Supervisory Patent Examiner, Art  
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